

Contents

Getting to Know ArcInfo 1

Introduction 3

1 Welcome to ArcInfo 5

- What can you do with ArcInfo? 6
- Unique projects to daily business 9
- Tasks you perform with ArcInfo 11
- Tips on learning ArcInfo 16

2 Exploring desktop ArcInfo 17

- Introducing ArcCatalog 18
- Viewing data in ArcCatalog 19
- Connecting to your data 20
- Introducing ArcMap 23
- Working with maps 24
- Exploring a map 25
- Adding a layer to a map 28
- Adding features from a database 29
- Changing the way features are drawn 30
- Adding labels to a map 33
- Working with the map layout 35
- Saving a map 41
- Printing a map 42
- What's next? 43

3 Exploring GIS data 45

- Geographic data models 46
- Formats of feature data 48

Conducting a GIS Project 57

4 Planning a GIS project 59

- What is a GIS analysis? 60
- The steps in a GIS project 63
- Planning your project 65

5 Organizing data 71

- Organizing the project with ArcCatalog 72
- Gathering data for the project 75
- Cleaning up the Catalog tree 79

6 Preparing data for analysis 81

- Introducing ArcToolbox 82
- Changing ArcToolbox settings 83
- Importing shapefiles to coverages 85
- What are coordinate systems? 88
- Defining a coordinate system interactively 90
- Projecting a coverage 93
- Defining a coordinate system by matching 96
- What is coverage topology? 98
- Creating topology for a coverage 99
- Appending adjacent coverages 101
- Adding items to a polygon attribute table 104
- Importing a coverage to a geodatabase 106
- Digitizing a feature 108

7 Creating derived data 115

- Extracting polygons from a coverage 116
- Buffering with the ArcToolbox Buffer Wizard 120
- Buffering with the ArcToolbox Buffer tool 123

- Erasing areas from a coverage 126
- Overlaying coverages with the Overlay Wizard 128

8 Analyzing data 131

- Starting a new map 132
- Selecting with all features in a layer 134
- Selecting with selected features 138
- Updating distance and suitability 144
- Selecting a range of values 150
- Selecting with a buffer 155
- Selecting large parcels 158
- View the analysis results 160

9 Presenting your results 165

- Creating a new layout 166
- Working with data frames 168
- Renaming data frames 170
- Customizing the overview data frame 172
- Customizing a second data frame 176
- Creating a selection layer 178
- Symbolizing the new layer 181
- Labeling the new layer 184
- Creating a report 186
- Adding an extent rectangle 190
- Adding legends 193
- Adding a North arrow 198
- Adding scale bars 199
- Adding a title 202
- Adding graphic rectangles 204
- Saving the map 207
- Exporting an image of the map 208
- What's next? 210

Glossary 211

Index 221

5 Organizing data 77

- Organizing the project with ArcCatalog 77
- Gathering data for the project 77
- Cleaning up the Catalog tree 77

6 Preparing data for analysis 81

- Introducing ArcToolbox 81
- Changing ArcToolbox settings 81
- Importing data to ArcCatalog 81
- What are coordinate systems? 81
- Defining a coordinate system interactively 81
- Projecting a coverage 81
- Defining a coordinate system by assigning 81
- What is coverage topology? 81
- Creating topology for a coverage 81
- Appending adjacent coverages 81
- Adding lines to a polygon attribute table 81
- Importing a coverage to a geodatabase 81
- Digitizing a feature 81

7 Creating derived data 115

- Extracting polygons from a coverage 115
- Buffering with the ArcToolbox Buffer Wizard 115
- Buffering with the ArcToolbox Buffer Wizard 115

8 Analyzing data 131

- Starting a new map 131
- Selecting with all features in a layer 131
- Selecting with selected features 131
- Lighting distance and suitability 131
- Selecting a range of values 131
- Selecting with a buffer 131
- Selecting large parcels 131
- Viewing the analysis results 131

9 Presenting your results 165

- Creating a new layout 165
- Working with data frames 165
- Reaming data frames 165
- Customizing the overview data frame 165
- Customizing a second data frame 165
- Creating a selection layer 165
- Symbolizing the new layer 165
- Labeling the new layer 165
- Creating a report 165
- Adding an extent rectangle 165
- Adding legends 165
- Adding a North arrow 165
- Adding scale bars 165
- Adding a title 165
- Adding graphic rectangles 165
- Saving the map 165
- Exporting an image of the map 165
- What's next? 165